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G4A AAP

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(58) Field of search
UK CL (Edition J) G4A AAP
INT CL⁴ G06F

(54) Power control security system for a computer

(57) A power control security system for a computer uses a code controller to control a power switch such as a relay or S.C.R. so that data stored in the computer are not disclosed without keying in the correct code of the code controller. The code controller includes a set of switches for setting a main code, a keyboard and a remote control input for receiving input of a code, a remote control output for sending out a code, a power control output for controlling the power switch and a keyboard control output for controlling lock-in of the keyboard.
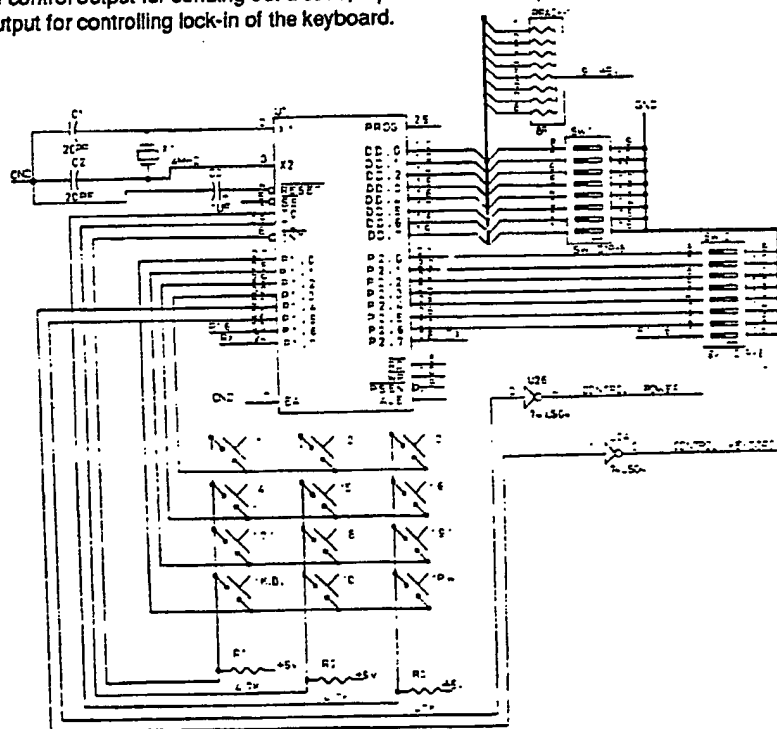


F I G. 1

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.
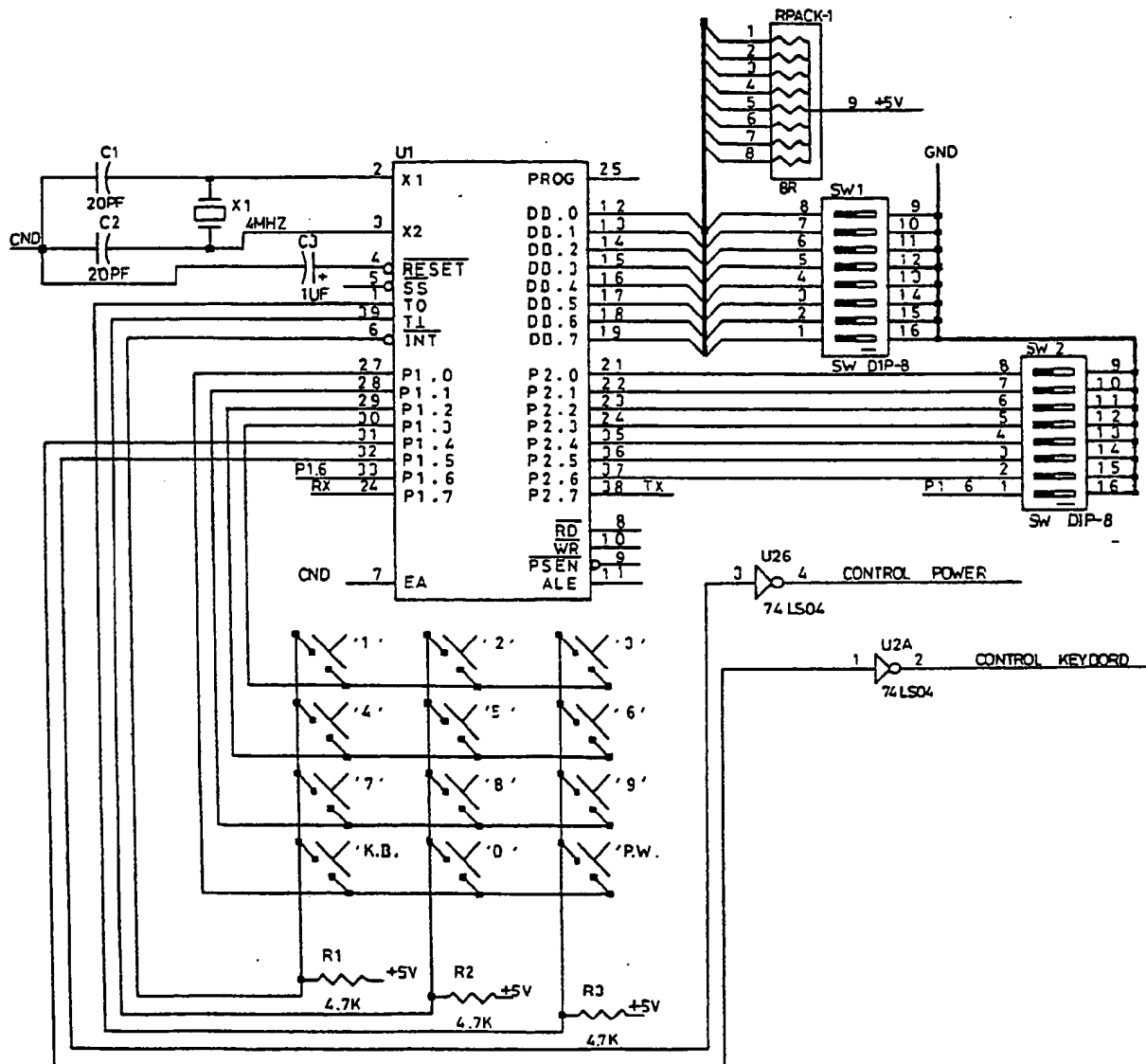
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FIG. 1
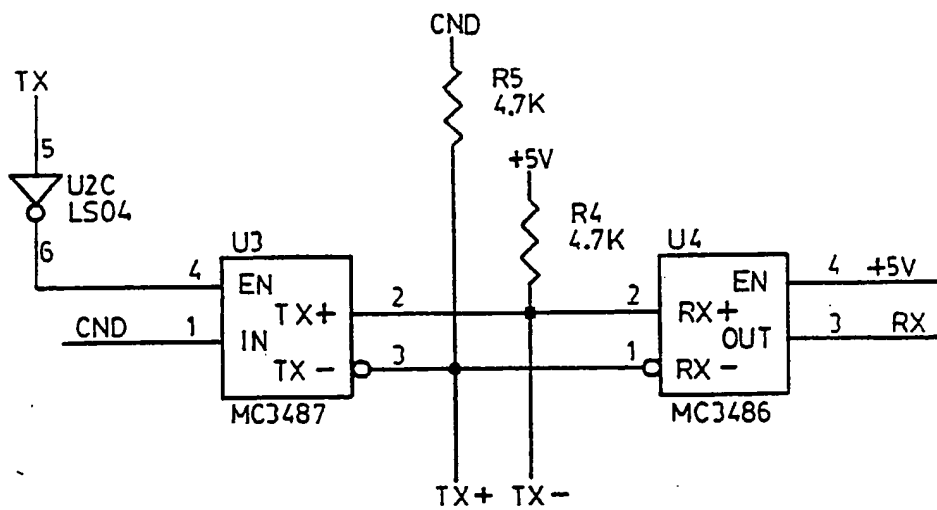
F I G.   2

TITLE: POWER CONTROL SECURITY SYSTEM FOR COMPUTER

This invention relates to a power control security
system for a computer.

It has been found that the security of the data

5      stored in a computer is achieved by either hardware
or software.  The former utilizes a mechanical lock
or a code lock to turn on a computer or the input of
a keyboard, while the latter applies the principles
of code comparation, file name concealment or the

10     like.  Nevertheless, the mechanical lock and the code
lock are easily damaged and so the data stored in the
computer can be easily copied or modified.  In addition,
such security system must be opened on the spot by the
responsible person thereby causing much inconvenience.

15     As to the latter, the data can be printed out and so
they can still be read out through some complex procedures.
Hence, such security means are insufficient to ensure
the data stored in a computer not to be stolen and do
not meet the need of the market.

20         It is, therefore, an object of the present invention
to provide a computer security system which may obviate
and mitigate the above-mentioned drawbacks.

(1)

This invention relates to a power control security system for a computer.

It is the primary object of the present invention to provide a computer security system which utilizes a

5      code controller to control a power switch such as a relay S.C.R. or TRAC so as to keep data stored in the computer from being disclosed without keying in the correct code of the code controller.

It is another object of the present invention to

10     provide a computer security system which can be controlled on the spot, via a computer network or by means of radio signals.

It is another object of the present invention ot provide a computer security system which can ensure the

15     data stored in a computer not to be copied or modified without permit.

It is still another object of the present invention to provide a computer security system which is easy to produce.

20     It is still another object of the present invention

(2)

to provide a computer security system which is very
low in cost.

It is a further object of the present invention
to provide a computer security system which is facile
5      to operate.

The novel features which are characteristics of
the invention, together with further objects and advantages
thereof will be better understood from the following
description considered in connection with the accompanied
10     drawings and in which a preferred embodiment of the
invention is illustrated by way of example.  It is to
be expressly understood, however, that the drawings
are for the purpose of illustration and description
only and are not intended as a definition of the limits
15     of the invention.

(3)

BRIEF DESCRIPTION OF THE DRAWINGS

FIG.1 shows an electrical circuit of a code controller of the present invention; and

5    FIG.2 shows the communication circuit of the present invention.

(4)

For purposes of promoting an understanding of the
principles of the invention, reference will now be made
to the embodiment illustrated in the drawings. Specific
language will be used to describe same. It will, nevertheless,

5    be understood that no limitation of the scope of the invention
is thereby intended, such alternations and further modifications
in the illustrated device, and such further modifications
in the illustrated device, and such further applications as
would normally occur to one skilled in the art to which

10   the invention relates.

With reference now to FIG.1, the code controller
according to the present invention mainly comprises a
single chip microprocessor UI, a set of switches SW,
a keyboard, a remote control input RX, a remote control

15   output TX, a power control output 32, a keyboard control
output 31 and some resistors, capacitors and transistors.
The switches SW are used to set a four-digit code. To
set the code, first press the P.W. key of the keyboard,
then a code such as 4321 preset in the factory and another

20   code such as 9876. The above-mentioned procedure may

(5)

change the code as desired.   Meanwhile, the power

control output 32 has not yet been actuated.   When

desired to turn on the power, it is necessary to

press the P.W. button of the keyboard first and then

5        the code such as 9876 thereby turning on the computer

or the power swith of the hard disc driver.   If the code

is keyed in once more, it will be turned off.   The

keyboard control output 31 is used to control the

lock-in signal of the keyboard, which function and

10       controlling way are just the same as the above-mentioned.

The remote control output TX and the remote control

input RX utilize a computer network or remote control

communication to achieve the function thereof.   FIG.2

shows the communication circuit of present invention.

15       As illustrated, the code may be transmitted to the

communication ciruit (TX +, TX -) via transformation

of an electrical interface U3 from the remote control

output TX.   Reversely, it may be via the signal of

the communication circuit (TX +, TX -) which is picked

20       up by another interface U4 and then transmitted into

the single chip microprocessor U1 of the code controller

(6)

from the remote control input RX for discrimination. If the code is correct, it will control the computer or the mechanism according to the aforementioned principle.

5      It conclusion, the present invention is mainly characterized by the following:

1. The present invention can be applied to microcomputers, personal computers as well as power supplies such as exchange power supply of a working

10    station, with only the explosure of the code output and input portions such as the keyboard. Hence, if no correct code is keyed in and the power supply has no switch to turn on, then the inside relay switch cannot be turned on and no power will be supplied to

15    the computer. Further, since the input of an exchange power supply is alternating current while the output thereof is direct current, it is impossible to use the alternating current to supply power to the computer without the control of the present invention thereby

20    keeping confidential the data stored in the computer.

2. Similarly, the present invention can also applied

(7)

to important mechanics such as hard disc driver.  Since
it is integrally combined with the present invention,
the hard disc driver will have no power if no correct
code is keyed in thus preventing the data stored in
5       the hard disc from printing out.

3. The present invention of the integrated circuit
simply by unitarily formed with the microprocessor or
the control integrated circuit so as to control the power
supply thereof.  In consequence, if no correct code is
10      keyed in, no power will be supplied thereto and the data
stored in the computer can be kept confidential.

Although the present invention has been described
with a certain degree of particularity, it is understood
the present disclosure is made by of example only and
15      that numerous changes in the detailed construction
and the combination and arrangement of parts may be
resorted to without departing from the spirit and scope
of the invention as  hereinafter claimed.

(8)

CLAIMS:

1. A power control security system for a computer utilizing a code controller to control a power switch such as a relay so as to keep data stored in the computer from being disclosed without keying in correct code of the code controller, sacd code controller comprising:

a set of switches for setting a main code;

a keyboard and a remote control imput for

receiving input of a code;

a remote control output for sending out a code;

a power control output for controlling a power

switch such as a relay, S.C.R. or TRAC and

a keyboard control output for controlling

lock-in of the keyboard.

2. The power control security system as claimed in Claim 1, wherein the input and output of the code are by means of transformation of an interface via a communication circuit.

3. The power control security system as claimed in Claim 1, wherein said code controller may be combined with a controlled power supply or unitarily formed with a controlled integrated circuit.
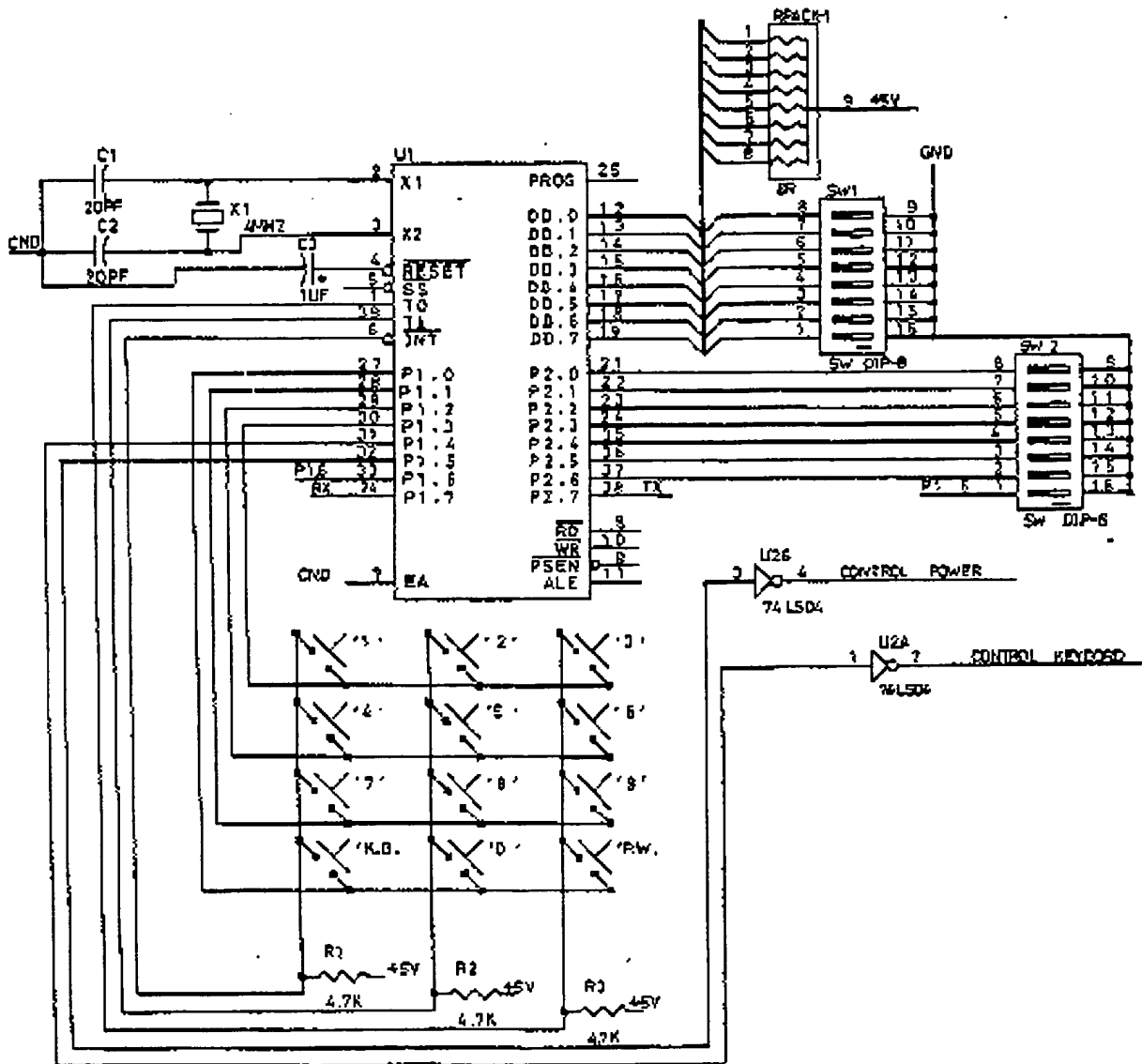
(9)

F I G.   1

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F I G.   2